

scrub both sides, i.e., face and reverse sides, of a semiconductor wafer with rollers having respective sponge layers, and the cleaning units 8a, 8b which are positioned near the wafer storage cassettes 2a, 2b may be of the type which supply a cleaning solution to a semiconductor wafer that is being held at its edge and rotated in a horizontal plane. Each of the cleaning units 8a, 8b also serves as a drying unit for spin-drying a semiconductor wafer under centrifugal forces until it is dried. The cleaning units 7a, 7b can perform a primary cleaning of the semiconductor wafer, and the cleaning units 8a, 8b can perform a secondary cleaning of the semiconductor wafer which has been subjected to the primary cleaning.

Please replace the paragraph beginning at page 12, line 19 to page 13, line 18 with the following rewritten paragraph:

As shown by solid lines, a semiconductor wafer is transferred from the storage cassette 3 a to the reversing unit 5. The semiconductor wafer is then transferred from the reversing unit 5 to the first polishing unit 1a after being reversed in the reversing unit 5. The semiconductor wafer is polished in the first polishing unit 1a and transferred therefrom to the cleaning unit 7a where it is cleaned. The cleaned semiconductor wafer is then transferred from the cleaning unit 7a to the second polishing unit 1b where it is polished. The semiconductor wafer is then transferred from the second polishing unit 1b to the cleaning unit 7b where it is cleaned. The cleaned semiconductor wafer is then transferred from the cleaning unit 7b to the reversing unit 6. The semiconductor wafer is then transferred from the reversing unit 6 to the cleaning unit 8b after reversed in the reversing unit 6. The semiconductor wafer ~~is~~ then transferred from the cleaning unit 8b to the storage cassette 2a after being cleaned and dried in the cleaning unit 8b. The transfer robots 4a, 4b use the respective dry fingers when handling dry semiconductor wafers, and the respective wet fingers when handling wet semiconductor wafers. The pusher 12 of the polishing unit 1a, which receives the semiconductor wafer to be polished from the transfer robot 4b, is elevated and transfers the semiconductor wafer to the top ring 13 when the top ring 13 is positioned above the pusher 12. The semiconductor wafer which has been polished is rinsed by a rinsing liquid supplied from a rinsing liquid supply device which is provided at the pusher 12.

Please replace the paragraph beginning at page 13, line 19 to page 14, line 7 with the following rewritten paragraph:

A4
After the semiconductor wafer is subjected to primary polishing in the polishing unit 1a, the semiconductor wafer is removed from the top ring 13 of the polishing unit 1a, and rinsed at the position of the pusher 12, and then cleaned in the cleaning unit 7a. Therefore, any abrasive liquid containing abrasive grains adhering to the polished surface, the reverse side of the polished surface, and side edge of the semiconductor wafer due to the primary polishing in the polishing unit 1a is completely removed. Then, the semiconductor wafer is applied to a secondary polishing in the polishing unit 1b, and then cleaned by the primary cleaning process of the cleaning unit 7b and the secondary cleaning process of the cleaning unit 8b. Thereafter, the polished and cleaned semiconductor wafer is spin-dried and returned to the storage cassette 2a. In the serial processing, polishing conditions of the primary polishing and secondary polishing are different from each other.

Please replace the paragraph beginning at page 14, line 9 to line 16 with the following rewritten paragraph:

A5
In the parallel processing, a semiconductor wafer is polished in a single polishing process. Two semiconductor wafers are simultaneously polished, and all of the four cleaning units 7a, 7b, 8a, 8b are operated to clean semiconductor wafers. One or both of the storage cassettes 2a, 2b may be used. In the illustrated embodiment, only the storage cassette 2a is used, and there are two routes in which semiconductor wafers used are processed.

Please replace the paragraph beginning at page 14, line 17 to page 15, line 2 with the following rewritten paragraph:

A6
In one of the routes, as shown by solid lines, a semiconductor wafer is transferred from the storage cassette 2a to the reversing unit 5. The semiconductor wafer is then transferred from the reversing unit 5 to the polishing unit 1a after being reversed in the reversing unit 5. The semiconductor wafer is polished in the polishing unit 1a and transferred therefrom to the cleaning

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unit 7a, where it is cleaned. The cleaned semiconductor wafer is then transferred from the cleaning unit 7a to the reversing unit 6. The semiconductor wafer is then transferred from the reversing unit 6 to the cleaning unit 8a after being reversed in the reversing unit 6. Thereafter, the semiconductor wafer is transferred from the cleaning unit 8a to the storage cassette 2a after being cleaned and dried in the cleaning unit 8a.

Please replace the paragraph beginning at page 15, line 2 to page 16, line 2 with the following rewritten paragraph:

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In the other of the routes, as shown by broken lines, another semiconductor wafer is transferred from the storage cassette 2a to the reversing unit 5. The semiconductor wafer is then transferred from the reversing unit 5 to the polishing unit 1b after being reversed in the reversing unit 5. The semiconductor wafer is polished in the polishing unit 1b and transferred therefrom to the cleaning unit 7b, where it is cleaned. The cleaned semiconductor wafer is then transferred from the cleaning unit 7b to the reversing unit 6. The semiconductor wafer is then transferred from the reversing unit 6 to the cleaning unit 8b after being reversed in the reversing unit 6. Thereafter, the semiconductor wafer is cleaned and dried in the cleaning unit 8b, and transferred to the storage cassette 2a. The transfer robots 4a, 4b use the respective dry fingers when handling dry semiconductor wafers, and the respective wet fingers when handling wet semiconductor wafers. The reversing unit 5 handles a dry semiconductor wafer, and the reversing unit 6 handles a wet semiconductor wafer in the same way as in the serial processing. In the above parallel processing, the primary cleaning process is performed by the cleaning units 7a, 7b, and the secondary cleaning process is performed by the cleaning units 8a, 8b may be used. In the parallel processing, polishing conditions in the polishing units 1a, 1b may be the same, cleaning conditions in the cleaning units 7a, 7b may be the same, and cleaning conditions in the cleaning units 8a, 8b may be the same.

Please replace the paragraph beginning at page 17, line 28 to page 18, line 6 with the following rewritten paragraph:

As is apparent from the above description, according to the present invention, the polishing apparatus can improve the quality and yield of workpieces by preventing the workpieces from being contaminated with an abrasive liquid used in a previous polishing process in a multi-stage polishing such as a two-stage polishing, and can polish workpieces simultaneously to increase throughput of the workpieces in a single-stage polishing.

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